

Complete Summary

GUIDELINE TITLE

Clinical prevention guidance. Sexually transmitted diseases treatment guidelines 2006.

BIBLIOGRAPHIC SOURCE(S)

Centers for Disease Control and Prevention, Workowski KA, Berman SM. Clinical prevention guidance. Sexually transmitted diseases treatment guidelines 2006. MMWR Morb Mortal Wkly Rep 2006 Aug 4;55(RR-11):2-6. [222 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention. Clinical prevention guidelines. Sexually transmitted diseases treatment guidelines. MMWR Recomm Rep 2002 May 10;51(RR-6):2-5.

COMPLETE SUMMARY CONTENT

SCOPE
 METHODOLOGY - including Rating Scheme and Cost Analysis
 RECOMMENDATIONS
 EVIDENCE SUPPORTING THE RECOMMENDATIONS
 BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
 CONTRAINDICATIONS
 QUALIFYING STATEMENTS
 IMPLEMENTATION OF THE GUIDELINE
 INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT
 CATEGORIES
 IDENTIFYING INFORMATION AND AVAILABILITY
 DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

- Sexually transmitted diseases (STDs), including:
 - Human immunodeficiency virus (HIV) infection
 - Hepatitis virus infection
 - Chlamydia
 - Gonorrhea
 - Trichomoniasis
 - Syphilis

- Human papillomavirus (HPV) infection
- Unintended pregnancy

GUIDELINE CATEGORY

Counseling
Diagnosis
Prevention
Risk Assessment

CLINICAL SPECIALTY

Family Practice
Infectious Diseases
Internal Medicine
Obstetrics and Gynecology
Preventive Medicine
Psychology

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Managed Care Organizations
Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

- To update the Sexually Transmitted Diseases Treatment Guidelines 2002 (MMWR 2002; 51[No. RR-6])
- To assist physicians and other health-care providers in preventing and treating sexually transmitted diseases (STDs)

TARGET POPULATION

Persons at risk for infection with sexually transmitted diseases (STDs) and sex partners of persons with STDs

INTERVENTIONS AND PRACTICES CONSIDERED

1. Identification of risk factors for transmitting and acquiring STDs, including HIV infection
2. Prevention messages including education and counseling on abstinence and maintaining monogamous relationships
3. Preexposure vaccination against hepatitis A and B and quadrivalent vaccination against human papillomavirus
4. Correct use of male condoms; use of water-based condom lubricants (K-Y Jelly™, Astroglide™, AquaLube™, and glycerin)

5. Use of female condoms (e.g., Reality™)
6. Use of vaginal spermicides* and diaphragms
7. Use of condoms and nonoxynol-9 (N-9) vaginal spermicides*
8. Rectal use of N-9 spermicides*

*Note: use of N-9 spermicides is not recommended

9. Counseling on use of nonbarrier contraceptive methods, surgical sterilization, and hysterectomy
10. Partner notification
11. Reporting of sexually transmitted diseases according to local and statutory requirements and confidentiality issues

MAJOR OUTCOMES CONSIDERED

- Prevention of transmission of STDs
- Prevention of sequelae of sexually transmitted diseases (STDs)
- Prevention of unintended pregnancies

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Subjective Review

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Beginning in 2004, the Centers for Disease Control and Prevention (CDC) personnel and professionals knowledgeable in the field of sexually transmitted diseases (STDs) systematically reviewed evidence, including published abstracts and peer-reviewed journal articles, concerning each of the major STDs, focusing on information that had become available since publication of the Sexually Transmitted Diseases Treatment Guidelines, 2002. Background papers were written and tables of evidence constructed summarizing the type of study (e.g., randomized controlled trial or case series), study population and setting, treatments or other interventions, outcome measures assessed, reported findings, and weaknesses and biases in study design and analysis. A draft document was developed on the basis of the reviews.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Consensus Development Conference)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

In April 2005, the Centers for Disease Control and Prevention (CDC) staff members and invited consultants assembled in Atlanta, Georgia, for a 3-day meeting to present the key questions regarding sexually transmitted disease (STD) treatment that emerged from the evidence-based reviews and the information available to answer those questions. When relevant, the questions focused on four principal outcomes of STD therapy for each individual disease: 1) microbiologic cure, 2) alleviation of signs and symptoms 3) prevention of sequelae, and 4) prevention of transmission. Cost-effectiveness and other advantages (e.g., single-dose formulations and directly observed therapy of specific regimens) also were discussed. The consultants then assessed whether the questions identified were relevant, ranked them in order of priority, and attempted to arrive at answers using the available evidence. In addition, the consultants evaluated the quality of evidence supporting the answers on the basis of the number, type, and quality of the studies.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Clinical Prevention Guidance

The prevention and control of sexually transmitted diseases (STDs) are based on the following five major strategies: 1) education and counseling of persons at risk on ways to avoid STDs through changes in sexual behaviors; 2) identification of asymptotically infected persons and of symptomatic persons unlikely to seek diagnostic and treatment services; 3) effective diagnosis and treatment of infected persons; 4) evaluation, treatment, and counseling of sex partners of persons who are infected with an STD; and 5) preexposure vaccination of persons at risk for vaccine-preventable STDs.

Primary prevention of STD begins with changing the sexual behaviors that place persons at risk for infection. Health-care providers have a unique opportunity to provide education and counseling to their patients. As part of the clinical interview, health-care providers should routinely and regularly obtain sexual histories from their patients and address management of risk reduction as indicated in this report. Guidance in obtaining a sexual history is available in *Contraceptive Technology*, 18th edition and in the curriculum provided by the Center for Disease Control and Prevention's (CDC's) STD/human immunodeficiency virus (HIV) Prevention Training Centers (<http://www.stdhivpreventiontraining.org>). Counseling skills, characterized by respect, compassion, and a nonjudgmental attitude toward all patients, are essential to obtaining a thorough sexual history and to delivering prevention messages effectively. Key techniques that can be effective in facilitating rapport with patients include the use of 1) open-ended questions (e.g., "Tell me about any new sex partners you've had since your last visit" and "What's your experience with using condoms been like?"), 2) understandable language ("Have you ever had a sore or scab on your penis?"), and 3) normalizing language ("Some of my patients have difficulty using a condom with every sex act. How is it for you?"). One approach to eliciting information concerning five key areas of interest has been summarized.

The Five Ps: Partners, Prevention of Pregnancy, Protection from STDs, Practices, Past History of STDs

1. Partners
 - "Do you have sex with men, women, or both?"
 - "In the past 2 months, how many partners have you had sex with?"
 - "In the past 12 months, how many partners have you had sex with?"
2. Prevention of pregnancy
 - "Are you or your partner trying to get pregnant?" If no, "What are you doing to prevent pregnancy?"
3. Protection from STDs
 - "What do you do to protect yourself from STDs and HIV?"
4. Practices
 - "To understand your risks for STDs, I need to understand the kind of sex you have had recently."

- "Have you had vaginal sex, meaning 'penis in vagina sex'?"
- If yes, "Do you use condoms: never, sometimes, or always?"
- "Have you had anal sex, meaning 'penis in rectum/anus sex'?"
- If yes, "Do you use condoms: never, sometimes, or always?"
- "Have you had oral sex, meaning 'mouth on penis/vagina'?"

For condom answers

- If "never:" "Why don't you use condoms?"
- If "sometimes:" "In what situations or with whom, do you not use condoms?"

5. Past history of STDs

- "Have you ever had an STD?"
- "Have any of your partners had an STD?"

Additional questions to identify HIV infection and hepatitis risk

- "Have you or any of your partners ever injected drugs?"
- "Have any of your partners exchanged money or drugs for sex?"
- "Is there anything else about your sexual practices that I need to know about?"

Patients should be reassured that treatment will be provided regardless of individual circumstances (e.g., ability to pay, citizenship or immigration status, language spoken, or specific sex practices). Many patients seeking treatment or screening for a particular STD should be evaluated for all common STDs; even so, all patients should be informed concerning all the STDs for which they are being tested and if testing for a common STD (e.g., genital herpes) is not being performed.

STD/HIV Prevention Counseling

Effective delivery of prevention messages requires that providers integrate communication of general risk reduction messages that are relevant to the client (i.e., client-centered counseling) and education regarding specific actions that can reduce the risk for STD/HIV transmission (e.g., abstinence, condom use, limiting the number of sex partners, modifying sexual behaviors, and vaccination). Each of these specific actions is discussed separately in this report.

- Interactive counseling approaches directed at a patient's personal risk, the situations in which risk occurs, and the use of goal-setting strategies are effective in STD/HIV prevention. One such approach, client-centered STD/HIV prevention counseling, involves tailoring a discussion of risk reduction to the patient's individual situation. Client-centered counseling can have a beneficial effect on the likelihood of patients using risk-reduction practices and can reduce the risk for future acquisition of an STD. One effective client-centered approach is Project RESPECT, which demonstrated that a brief counseling intervention was associated with a reduced frequency of STD/HIV risk-related behaviors and with a lowered acquisition of STDs. Practice models based on Project RESPECT have been successfully implemented in clinic-based settings. Other approaches use motivational interviewing to move clients toward achievable risk reduction goals. CDC provides additional information on these

and other effective behavioral interventions at

<http://effectiveinterventions.org>.

- Interactive counseling can be used effectively by all health-care providers or can be conducted by specially trained counselors. The quality of counseling is best ensured when providers receive basic training in prevention counseling methods and skill-building approaches, periodic observation of counseling with immediate feedback by persons with expertise in the counseling approach, periodic counselor and/or patient satisfaction evaluations, and availability of expert assistance or referral for challenging situations. Training in client-centered counseling is available through the CDC STD/HIV Prevention Training Centers (<http://www.stdhivpreventiontraining.org>). Prevention counseling is most effective if provided in a nonjudgmental manner appropriate to the patient's culture, language, sex, sexual orientation, age, and developmental level.

In addition to individual prevention counseling, some videos and large group presentations provide explicit information concerning how to use condoms correctly. These have been effective in reducing the occurrence of additional STDs among persons at high risk, including STD clinic patients and adolescents.

Because the incidence of some STDs, notably syphilis, has increased in HIV-infected persons, the use of client-centered STD counseling for HIV-infected persons has received strong emphasis from public health agencies and organizations. Consensus guidelines issued by CDC, the Health Resources and Services Administration, the HIV Medicine Association of the Infectious Diseases Society of America, and the National Institutes of Health emphasize that STD/HIV risk assessment, STD screening, and client-centered risk reduction counseling should be provided routinely to HIV-infected persons. Several specific methods have been designed for the HIV care setting. Additional information regarding these approaches is available at <http://effectiveinterventions.org>.

Prevention Methods

Client-Initiated Interventions to Reduce Sexual Transmission of STD/HIV and Unintended Pregnancy

Abstinence and Reduction of Number of Sex Partners

The most reliable way to avoid transmission of STDs is to abstain from sexual (i.e., oral, vaginal, or anal sex) or to be in a long-term, mutually monogamous relationship with an uninfected partner. Counseling that encourages abstinence from sexual intercourse is crucial for persons who are being treated for an STD (or whose partners are undergoing treatment) and for persons who wish to avoid the possible consequences of sex completely (e.g., STD/HIV and unintended pregnancy). A more comprehensive discussion of abstinence and the range of sexual expression is available in *Contraceptive Technology*, 18th edition. For persons embarking on a mutually monogamous relationship, screening for common STDs before initiating sex might reduce the risk for future transmission of asymptomatic STDs.

Preexposure Vaccination

Preexposure vaccination is one of the most effective methods for preventing transmission of some STDs. For example, because hepatitis B virus (HBV) infection is frequently sexually transmitted, hepatitis B vaccination is recommended for all unvaccinated, uninfected persons being evaluated for an STD. In addition, hepatitis A vaccine is licensed and is recommended for men who have sex with men (MSM) and illicit drug users (i.e., both injecting and non-injecting). Specific details regarding hepatitis A and B vaccination are available at www.cdc.gov/hepatitis. A quadrivalent vaccine against human papillomavirus (HPV types 6, 11, 16, 18) is now available and licensed for females aged 9-26 years. Vaccine trials for other STDs are being conducted.

Male Condoms

When used consistently and correctly, male latex condoms are effective in preventing the sexual transmission of HIV infection (i.e., HIV-negative partners in heterosexual serodiscordant relationships in which condoms were consistently used were 80% less likely to become HIV-infected compared with persons in similar relationships in which condoms were not used) and can reduce the risk for other STDs, including chlamydia, gonorrhea, and trichomoniasis, and might reduce the risk of women developing pelvic inflammatory disease (PID). Condom use might reduce the risk for transmission of herpes simplex virus-2 (HSV-2), although data for this effect are more limited. Condom use might reduce the risk for HPV-associated diseases (e.g., genital warts and cervical cancer) and mitigate the adverse consequences of infection with HPV, as their use has been associated with higher rates of regression of cervical intraepithelial neoplasia (CIN) and clearance of HPV infection in women, and with regression of HPV-associated penile lesions in men. A limited number of prospective studies have demonstrated a protective effect of condoms on the acquisition of genital HPV; one recent prospective study among newly sexually active college women demonstrated that consistent condom use was associated with a 70% reduction in risk for HPV transmission.

Condoms are regulated as medical devices and are subject to random sampling and testing by the Food and Drug Administration (FDA). Each latex condom manufactured in the United States is tested electronically for holes before packaging. Rates of condom breakage during sexual intercourse and withdrawal are approximately two broken condoms per 100 condoms used in the United States. The failure of condoms to protect against STD transmission or unintended pregnancy usually results from inconsistent or incorrect use rather than condom breakage.

Male condoms made of materials other than latex are available in the United States. Although they have had higher breakage and slippage rates when compared with latex condoms and are usually more costly, the pregnancy rates among women whose partners use these condoms are similar to latex condoms. Two general categories of nonlatex condoms exist. The first type is made of polyurethane or other synthetic material and provides protection against STD/HIV and pregnancy equal to that of latex condoms. These can be substituted for persons with latex allergy. The second type is natural membrane condoms (frequently called "natural" condoms or, incorrectly, lambskin condoms). These condoms are usually made from lamb cecum and can have pores up to 1500 nm in diameter. Whereas these pores do not allow the passage of sperm, they are

more than 10 times the diameter of HIV and more than 25 times that of HBV. Moreover, laboratory studies demonstrate that viral STD transmission can occur with natural membrane condoms. Using natural membrane condoms for protection against STDs is not recommended.

Patients should be advised that condoms must be used consistently and correctly to be highly effective in preventing STDs. Patients should be instructed in the correct use of condoms. The following recommendations ensure the proper use of male condoms.

- Use a new condom with each sex act (e.g., oral, vaginal, and anal).
- Carefully handle the condom to avoid damaging it with fingernails, teeth, or other sharp objects.
- Put the condom on after the penis is erect and before any genital contact with the partner.
- Use only water-based lubricants (e.g., K-Y Jelly™, Astroglide™, AquaLube™, and glycerin) with latex condoms. Oil-based lubricants (e.g., petroleum jelly, shortening, mineral oil, massage oils, body lotions, and cooking oil) can weaken latex.
- Ensure adequate lubrication during vaginal and anal sex, which might require the use of exogenous water-based lubricants.
- To prevent the condom from slipping off, hold the condom firmly against the base of the penis during withdrawal, and withdraw while the penis is still erect.

Female Condoms

Laboratory studies indicate that the female condom (Reality™), which consists of a lubricated polyurethane sheath with a ring on each end that is inserted into the vagina, is an effective mechanical barrier to viruses, including HIV, and to semen. A limited number of clinical studies have evaluated the efficacy of female condoms in providing protection from STDs, including HIV. If used consistently and correctly, the female condom might substantially reduce the risk for STDs. When a male condom cannot be used properly, sex partners should consider using a female condom. Female condoms are costly compared with male condoms. The female condom also has been used for STD/HIV protection during receptive anal intercourse. Whereas it might provide some protection in this setting, its efficacy is undefined.

Vaginal Spermicides and Diaphragms

Vaginal spermicides containing nonoxynol-9 (N-9) are not effective in preventing cervical gonorrhea, chlamydia, or HIV infection. Furthermore, frequent use of spermicides containing N-9 has been associated with disruption of the genital epithelium, which might be associated with an increased risk for HIV transmission. Therefore, N-9 is not recommended for STD/HIV prevention. In case-control and cross-sectional studies, diaphragm use has been demonstrated to protect against cervical gonorrhea, chlamydia, and trichomoniasis; a randomized controlled trial will be conducted. On the basis of all available evidence, diaphragms should not be relied on as the sole source of protection against HIV infection. Diaphragm and spermicide use has been associated with an increased risk of bacterial urinary tract infections in women.

Condoms and N-9 Vaginal Spermicides

Condoms lubricated with spermicides are no more effective than other lubricated condoms in protecting against the transmission of HIV and other STDs, and those that are lubricated with N-9 pose the concerns that have been previously discussed. Use of condoms lubricated with the N-9 is not recommended for STD/HIV prevention because spermicide-coated condoms cost more, have a shorter shelf-life than other lubricated condoms, and have been associated with urinary tract infection in young women.

Rectal Use of N-9 Spermicides

Recent studies indicate that N-9 might increase the risk for HIV transmission during vaginal intercourse. Although similar studies have not been conducted among men who use N-9 spermicide during anal intercourse with other men, N-9 can damage the cells lining the rectum, which might provide a portal of entry for HIV and other sexually transmissible agents. Therefore, N-9 should not be used as a microbicide or lubricant during anal intercourse.

Nonbarrier Contraception, Surgical Sterilization, and Hysterectomy

Sexually active women who are not at risk for pregnancy might incorrectly perceive themselves to be at no risk for STDs, including HIV infection. Contraceptive methods that are not mechanical barriers offer no protection against HIV or other STDs. Women who use hormonal contraception [e.g., oral contraceptives, Norplant™, and Depo-Provera™], have intrauterine devices (IUDs), have been surgically sterilized, or have had hysterectomies should be counseled regarding the use of condoms and the risk for STDs, including HIV infection.

Emergency Contraception (EC)

Emergency use of oral contraceptive pills containing levonorgestrel alone reduces the risk for pregnancy after unprotected intercourse by 89%. Pills containing a combination of ethinyl estradiol and either norgestrel or levonorgestrel can be used and reduce the risk for pregnancy by 75%. Emergency insertion of a copper IUD also is highly effective, reducing the risk by as much as 99%. EC with oral contraceptive pills should be initiated as soon as possible after unprotected intercourse and definitely within 120 hours (i.e., 5 days). The only medical contraindication to provision of EC is current pregnancy.

Providers who manage persons at risk for STDs should counsel women concerning the option for EC, if indicated, and provide it in a timely fashion if desired by the woman. Plan B (two 750 mcg levonorgestrel tablets) has been approved by FDA and is available in the United States for the prevention of unintended pregnancy. Additional information on EC is available in *Contraceptive Technology*, 18th edition, or at <http://www.arhp.org/healthcareproviders/resources/contraceptionresources>.

Postexposure Prophylaxis (PEP) for HIV

Guidelines for the use of PEP aimed at preventing HIV acquisition as a result of sexual exposure are available and are summarized in the National Guideline Clearinghouse (NGC) Center for Disease Control and Protection (CDC) guideline [Sexual Assault and STDs](#).

Partner Management

Partner notification, once referred to as "contact tracing" but more recently included in the broader category of partner services, is the process by which providers or public health authorities learn from persons with STDs about their sex partners and help to arrange for the evaluation and treatment of sex partners. Providers can seek this information and help to arrange for evaluation and treatment of sex partners, either directly or with assistance from state and local health departments. The intensity of partner services and the specific STDs for which such services are offered vary among providers, agencies, and geographic areas. Ideally, such services should be accompanied by health counseling and might include referral of patients and their partners for other services, whenever appropriate.

In general, whether partner notification effectively decreases exposure to STDs and whether it changes the incidence and prevalence of STDs in a community are uncertain. The paucity of supporting evidence regarding the effectiveness of partner notification has spurred the exploration of alternative approaches. One such approach is to place partner notification in a larger context by making interventions in the sexual and social networks in which persons are exposed to STDs. Prospective evaluations incorporating assessment of venues, community structure, and social and sexual contacts in conjunction with partner notification of efforts are promising in terms of increasing case-finding and warrant further exploration. The scope of such efforts probably precludes individual clinician efforts to use network-based approaches, but STD-control programs might find them useful.

Many persons individually benefit from partner notification. When partners are treated, index patients have reduced risk for reinfection. At a population level, partner notification can disrupt networks of STD transmission and reduce disease incidence. Therefore, providers should encourage their patients with STDs to notify their sex partners and urge them to seek medical evaluation and treatment, regardless of whether assistance is available from health agencies. When medical evaluation, counseling, and treatment of partners cannot be done because of the particular circumstances of a patient or partner or because of resource limitations, other partner management options can be considered. One option is patient-delivered therapy, a form of expedited partner therapy (EPT) in which partners of infected patients are treated without previous medical evaluation or prevention counseling (<http://www.cdc.gov/std/treatment/EPTFinalReport2006.pdf>). The evidence supporting patient-delivered therapy is based on three clinical trials that included heterosexual men and women with chlamydia or gonorrhea. The strength of the supporting evidence differed by STD and by the sex of the index case when reinfection of the index case was the measured outcome. Despite this variation, patient-delivered therapy (i.e., via medications or prescriptions) can prevent reinfection of index case and has been associated with a higher likelihood of partner notification, compared with unassisted patient referral of partners. Medications and prescriptions for patient-delivered therapy should be

accompanied by treatment instructions, appropriate warnings about taking medications if pregnant, general health counseling, and advice that partners should seek personal medical evaluations, particularly women with symptoms of STDs or PID. Existing data suggest that EPT has a limited role in partner management for trichomoniasis. No data support its use in the routine management of syphilis. There is no experience with EPT for gonorrhea or chlamydia infection among MSM. Currently, EPT is not feasible in many settings because of operational barriers, including the lack of clear legal status of EPT in some states.

Reporting and Confidentiality

The accurate and timely reporting of STDs is integrally important for assessing morbidity trends, targeting limited resources, and assisting local health authorities in partner notification and treatment. STD/HIV and acquired immunodeficiency syndrome (AIDS) cases should be reported in accordance with local statutory requirements. Syphilis, gonorrhea, chlamydia, chancroid, HIV infection, and AIDS are reportable diseases in every state. The requirements for reporting other STDs differ by state, and clinicians should be familiar with local reporting requirements.

Reporting can be provider- and/or laboratory-based. Clinicians who are unsure of local reporting requirements should seek advice from local health departments or state STD programs. STD and HIV reports are kept strictly confidential. In the majority of jurisdictions, such reports are protected by statute from subpoena. Before public health representatives conduct a follow-up of a positive STD-test result, they should consult the patient's health-care provider to verify the diagnosis and treatment.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

Throughout the 2006 guideline document, the evidence used as the basis for specific recommendations is discussed briefly. More comprehensive, annotated discussions of such evidence will appear in background papers that will be published in a supplement issue of the journal Clinical Infectious Diseases.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate guidance in preventing and treating patients with sexually transmitted diseases (STDs)

POTENTIAL HARMS

Not stated

CONTRAINDICATIONS

CONTRAINDICATIONS

The only medical contraindication to provision of emergency contraception is current pregnancy.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- These recommendations were developed in consultation with public- and private-sector professionals knowledgeable in the treatment of patients with sexually transmitted diseases (STDs). The recommendations are applicable to various patient-care settings, including family planning clinics, private physicians' offices, managed care organizations, and other primary-care facilities.
- These recommendations are meant to serve as a source of clinical guidance: health-care providers should always consider the individual clinical circumstances of each person in the context of local disease prevalence. These guidelines focus on the treatment and counseling of individual patients and do not address other community services and interventions that are important in STD/human immunodeficiency virus (HIV) prevention.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Personal Digital Assistant (PDA) Downloads

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Centers for Disease Control and Prevention, Workowski KA, Berman SM. Clinical prevention guidance. Sexually transmitted diseases treatment guidelines 2006. MMWR Morb Mortal Wkly Rep 2006 Aug 4;55(RR-11):2-6. [222 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1993 (revised 2006 Aug 4)

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

GUIDELINE DEVELOPER COMMENT

These guidelines for the treatment of persons who have sexually transmitted diseases (STDs) were developed by CDC after consultation with a group of professionals knowledgeable in the field of STDs who met in Atlanta, Georgia, during April 19–21, 2005.

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Chairpersons: David Atkins, MD, Agency for Healthcare Research and Quality, Rockville, Maryland; Kimberly A. Workowski, MD, National Center for HIV, STD, and TB Prevention, CDC, and Emory University, Atlanta, GA

Presenters: Heidi Bauer, MD, California Sexually Transmitted Disease Control Branch, Oakland, California; Emily J. Erbelding, MD, Johns Hopkins University School of Medicine, Baltimore, Maryland; William M. Geisler, MD, Department of Medicine, University of Alabama, Birmingham, Alabama; Margaret Hammerschlag, MD, State University of New York, Downstate Medical Center, Brooklyn, New York; Peter Leone, MD, University of North Carolina School of Medicine, Chapel Hill,

North Carolina; Jenne Marrazzo, MD, University of Washington, Harborview Medical Center, Seattle, Washington; Kenneth Hugh Mayer, MD, Brown University Medical School, Providence, Rhode Island; Pablo Sanchez, MD, University of Texas Southwestern Medical Center, Dallas, Texas; Bradley Stoner, MD, PhD, Washington University, St. Louis, Missouri; Anna Wald, MD, University of Washington, Harborview Medical Center, Seattle, Washington; George Wendel, MD, University of Texas Southwestern Medical School, Dallas, Texas; Karen Wendel, MD, University of Oklahoma Health Science Center, Oklahoma City, Oklahoma; Harold C. Wiesenfeld, MD, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania

Moderators: Willard Cates, Jr., MD, Family Health International, Durham, North Carolina; King K. Holmes, MD, PhD, University of Washington, Harborview Medical Center, Seattle, Washington; David Martin, MD, Louisiana State University Medical Center, New Orleans, Louisiana

Rapporteurs: Hunter Handsfield, MD, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia, University of Washington, Seattle, Washington; William McCormack, MD, State University of New York Health Science Center, Brooklyn, New York; Anne Rompalo, MD, Johns Hopkins School of Medicine, Baltimore, Maryland

Consultants: Michael Augenbraun, MD, State University of New York Health Science Center, Brooklyn, New York; Gail Bolan, MD, California Department of Health, Oakland, California; Carolyn Deal, PhD, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland; Kenneth H. Fife, MD, PhD, Indiana University School of Medicine, Indianapolis, Indiana; J. Dennis Fortenberry, MD, Indiana University School of Medicine, Indianapolis, Indiana; Edward Hook, III, MD, Department of Medicine, University of Alabama, Birmingham, Alabama; Franklyn Judson, MD, University of Colorado Department of Medicine and Preventive Medicine, Denver, Colorado; Alice A. Kraman, PharmD; Emory Healthcare, Atlanta, Georgia; Roberta B. Ness, MD, University of Pittsburgh Department of Medicine, Pittsburgh, Pennsylvania; Paul Nyirjesy, MD, Drexel University College of Medicine, Philadelphia, Pennsylvania; Jeffrey Peipert, MD, Women and Infants Hospital, Providence, Rhode Island; Jane R. Schwebke, MD, Department of Medicine, University of Alabama, Birmingham, Alabama; Mary Ann Shafer, MD, University of California, San Francisco Department of Medicine, San Francisco, California; David Soper, MD, Medical University of South Carolina, Charleston, South Carolina; Lawrence Stanberry, MD, PhD, University of Texas Medical Branch, Galveston, Texas; Heather Watts, MD, National Institute of Child Health and Development, National Institutes of Health, Bethesda, Maryland; Jonathan M. Zenilman, MD, Johns Hopkins Bayview Medical Center, Baltimore, Maryland

Liaison Participants: Joanne Armstrong, MD, Women's Health, Aetna, Sugar Land, Texas; James R. Allen, MD, American Social Health Association, Durham, North Carolina; Margaret J. Blythe, MD, American Academy of Pediatrics, Indianapolis, Indiana; Sherry R. Crump, MD, American College of Preventive Medicine, Atlanta, GA; Carolyn D. Deal, PhD, National Institutes of Health, Bethesda, Maryland; Jordon Dimitrakov, MD, PhD, American Urological Association, Boston, Massachusetts; Mark FitzGerald, MD, British Association for Sexual Health and HIV, Southampton, United Kingdom; Edward Harrison, National Commission on

Correctional Health Care, Chicago, Illinois; Edward W. Hook, III, MD, Infectious Disease Society of America, Birmingham, Alabama; Michel Janier, MD, PhD, International Union Against Sexually Transmitted Infections Europe, Paris, France; Abe Macher, MD, HIV/AIDS Bureau, Rockville, Maryland; Francis J. Ndowa, MD, World Health Organization, Geneva, Switzerland; Jeffrey F. Peipert, MD, American College of Obstetricians and Gynecologists, Providence, Rhode Island; Kees A. Rietmeijer, MD, PhD, Denver Public Health Department, Denver, Colorado; Richard Rothman, MD, American College of Emergency Physicians, Baltimore, Maryland; David Soper, MD, Infectious Diseases Society for Obstetrics and Gynecology, Charleston, South Carolina; Litjen Tan, PhD, American Medical Association, Chicago, Illinois; Bruce Trigg, MD, National Coalition for Sexually Transmitted Disease Directors, Albuquerque, New Mexico; Julia Valderrama, MD, Pan American Health Organization, Washington, DC; Tom Wong, MD, Public Health Agency of Canada, Ottawa, Ontario, Canada; Miriam Ziemann, MD, Association of Reproductive Health Professionals, Atlanta, Georgia

CDC, Division of Sexually Transmitted Disease Prevention Treatment Guidelines 2006 Project. Coordinator: Kimberly A. Workowski, MD, National Center for HIV, STD, and TB Prevention, CDC, and Emory University, Atlanta, GA

Project Manager: Donald F. Dowda, ORISE, Oakridge, Tennessee; Richard Voigt, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia

Co-Moderators: Lyn Finelli, Ph.D., DSTDP; Robert Johnson, M.D., DSTDP; Lauri Markowitz, M.D., DSTDP

CDC Presenters: Joanna Buffington, MD, National Center for Infectious Diseases; Eileen Dunne, MD, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia; Matthew Hogben, PhD, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia; Emily Koumans, MD, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia; Hershel Lawson, MD, National Center for Chronic Disease Prevention and Health Promotion, Atlanta, Georgia; Catherine McLean, MD, National Center for HIV, STD, and TB Prevention, Atlanta, Georgia; Juliette Morgan, MD, National Center for Infectious Diseases, CDC, Atlanta, Georgia; Lori Newman, MD, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia; Madeline Sutton, MD, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia

CDC Consultants: Sevgi O. Aral, PhD, Stuart M. Berman, MD, John Douglas, MD, Susan J. DeLisle, Kathleen Ethier, PhD, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia; Kevin Fenton, MD, National Center for HIV, Hepatitis, Sexually Transmitted Diseases and Tuberculosis Prevention, CDC, Atlanta, Georgia; John Moran, MD, National Immunization Program, CDC, Atlanta, Georgia; Julia Schillinger, MD, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia

Support Staff: Valerie Barner, Winda Graves, Garrett Mallory, Deborah McElroy, National Center for HIV, STD, and TB Prevention, CDC, Atlanta, Georgia; Eboney Walker, NAI Personnel, Washington, DC

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention. Clinical prevention guidelines. Sexually transmitted diseases treatment guidelines. MMWR Recomm Rep 2002 May 10;51(RR-6):2-5.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Centers for Disease Control and Prevention (CDC) Web site:

- [HTML Format](#)
- [Portable Document Format \(PDF\)](#)

Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Workowski KA, Levine WC, Wasserheit JN. U.S. Centers for Disease Control and Prevention guidelines for the treatment of sexually transmitted diseases: an opportunity to unify clinical and public health practice. Ann Intern Med. 2002 Aug 20;137(4):255-62. Electronic copies: Available through [Annals of Internal Medicine Online](#).
- The CDC Sexually Transmitted Diseases Treatment Guidelines 2004 for PDA or Palm OS. Available from the [CDC National Prevention Information Network \(NPIN\) Web site](#).

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on August 19, 2002. This NGC summary was updated by ECRI on October 5, 2006.

COPYRIGHT STATEMENT

No copyright restrictions apply.

DISCLAIMER

NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx>.

NGC, AHRQ, and its contractor ECRI make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

© 1998-2007 National Guideline Clearinghouse

Date Modified: 12/10/2007

